AMENDMENTS TO THE SPECIFICATION:

Please replace the Abstract of the Disclosure with the following rewritten Abstract which appears on a separate sheet in the Appendix.

Page 2, replace the paragraph beginning on line 1 with the following amended paragraph:

--A small amount of [[the]] sample introduced from ~~the~~ an introduction channel ~~for introduction~~ into ~~the~~ a separation channel ~~for separation~~ can~~, however,~~ only yield a slight amount of target ~~component~~ components. Failure in obtaining the target components with a high concentration raises a problem of degradation in the accuracy of the analysis. On the other hand, widening [[of]] the introduction channel ~~for introduction, aiming~~ to increase the amount of sample introduced into the separation channel ~~for separation~~, broadens the bands of the sample flowing through the separation channel ~~for separation~~, which degrades the resolution, and results in [[only]] an inaccurate separation. Charging [[of]] a high concentration of sample, despite the introduction channel ~~for introduction is remained~~ being narrow, also results in aggregation of the sample itself, which degrades the resolution, and fails in carrying out a desirable separation.--

Page 3, replace the paragraph beginning on line 11 and bridging pages 3 and 4 with the following amended paragraph:

--This configuration allows the components-to-be-separated to move through the channel respectively at their specific speeds, ~~and~~ so that a component ~~passed~~ that passes through one compartment when the first external force imposing pattern was executed is prevented from flowing back into a compartment which resides on the side opposite to the forward direction of the channel even when the second external force imposing pattern is executed, so that it is [[made]] possible to separate the individual components-to-be-separated into any of the compartments depending on their specific migration ranges. The migration ranges of the individual components-to-be-separated herein are determined by properties of the individual components, magnitude of the external force, and application time of the external force. This makes it possible to separate and concentrate the components-to-be-separated. It is to be noted herein that imposition of the external force in the forward direction of the channel means that a force causing sample movement in the individual compartments in the forward direction of the channel is imposed. It is also to be noted herein that imposition of the external force in the direction opposite to the forward direction of the channel means that a force causing sample movement in the individual compartments in the direction opposite to the forward direction of the channel is imposed.--

Page 4, replace the paragraph beginning on line 14 with the following amended paragraph:

--In the separation apparatus of the present invention, the check valves may be formed so as to block back flow of at least a part of the components-to-be-separated ~~flew~~ that flows through each of the check valves and ~~moved~~ moves to the downstream side of the channel.--

Page 6, replace the paragraph beginning on line 9 with the following amended paragraph:

--According to this configuration, in the compartment in which the external force imposing pattern causing positive external force component in the sample forwarding direction of the channel is executed, the components-to-be-separated move in the sample forwarding direction of the channel at their specific speeds depending on length of the compartment, and in the compartment in which the external force imposing pattern causing negative external force component in the sample forwarding direction of the channel is executed, the components-to-be-separated move in the direction opposite to the sample forwarding direction of the channel. Because it is [[made]] possible to move the component that has passed through the interception unit into the next compartment by imposing the next pattern, the individual components can be separated into any of the compartments depending on their specific migration ranges, by sequentially repeating a plurality of external force imposing

patterns. This makes it possible to separate and concentrate the components-to-be-separated.--

Page 8, replace the paragraph beginning on line 6 with the following amended paragraph:

--Because the components that have reached the bent portion move to the next compartment upon being applied with the next pattern, and move through the compartment, the individual components can be separated into any of the compartments depending on their specific migration ranges by sequentially repeating the plurality of external force imposing patterns. This makes it possible to separate and concentrate the components-to-be-separated.--

Page 25, replace the paragraph beginning on line 14 with the following amended paragraph:

--Direction of the voltage application is inverted again so as to make the sample flow rightward in the drawing, and thereafter the alternative inversion of the direction of voltage application are repeated. In this process, the voltage allowing the sample to flow towards the destination of recovery is preferably applied for a constant duration of time for every application. Although the duration of time, over which the voltage is applied to make the sample flow towards the sample introduction portion, is not always necessarily [[be]] kept constant for every application, the duration of time is preferably adjusted long enough to allow the samples contained in

the individual compartments to reach the gateway portions which reside on the left hand side of these compartments.--

Page 25, replace the paragraph beginning on line 26 and bridging pages 25 and 26 with the following amended paragraph:

--In this configuration, any components having migration ranges of smaller than $d_1$, under voltage application for a predetermined duration of time, keep on staying within the compartment 200, and cannot move to the next compartment 202. Similarly, any components having migration ranges of smaller than $d_2$, under voltage application for a predetermined duration of time, keep on staying within the compartment 202, any components having migration ranges of smaller than $d_3$, under voltage application for a predetermined duration of time, keep on staying within the compartment 204, and any components having migration ranges of smaller than $d_4$, under voltage application for a predetermined duration of time, keep on staying within the compartment 206. Because the individual compartments 200 to 206 are formed so that the ~~one~~ ones placed closer to the right hand side have a larger length, it is typically made possible to allow any components having migration ranges of not smaller than $d_1$ and smaller than $d_2$, under voltage application for a predetermined duration of time, keep on staying within the compartment 202.--

Page 27, replace the paragraph beginning on line 6 with the following amended paragraph:

--When the voltage is applied so as to make the sample flow towards the destination of recovery, elongation of duration of time of voltage application results in increase in the rightward migration ranges of the individual components. When the duration of time of voltage application is increased to a slight degree, only a component having the largest migration speed, out of the components being kept on staying in the compartment 206, for example, is eluted from the compartment 206. This makes it possible to recover only the component having the largest migration speed, out of the components having been fractionated into the compartment 206~~, can be recovered~~. Next, when a similar voltage application cycle is repeated while elongating the duration of time of voltage application a little longer, the individual compartments will have, fractionated therein, the components which can migrate over at least distances ~~corresponded~~ corresponding to the lengths of the compartments placed on the left hand side within the application time. Elongation again of the duration of time of voltage application results, for example, in elution of the component having the largest migration speed, out of the components having been kept on staying in the compartment 206, from the compartment 206. Repetition of these processes makes it possible to separate and

recover the individual components in a concentrated and accurate manner.--

Page 28, replace the paragraph beginning on line 1 with the following amended paragraph:

--Next paragraphs will describe configuration of the gateway portions 208 to 214. Because the gateway portion 208 to 214 have the same configuration, only a configuration of the gateway portion 210 will be shown. As shown in Fig. 19, the gateway portion 210 of the present embodiment is configured by a plurality of pillars 125. The ~~pillar~~ pillars 125 herein refers to a tiny columnar structure having a geometry of circular cylinder or oval cylinder. The plurality of pillars 125 herein are arranged at intervals narrow enough to prevent any target components in the sample from passing therethrough. Because a fluid such as buffer carrying the sample can pass through the gaps between the pillars 125, the gateway portion 210 can be made electro-conductive, and this allows the sample passing through the channel for separation 112 to move therethrough, without being electrically affected by the gateway portion 210 and so forth.--

Page 29, replace the paragraph beginning on line 26 and bridging pages 29 and 30 with the following amended paragraph:

--Next, the direction of voltage application is inverted so as to make the sample move rightward in the drawing. In this process, any portion, out of the component f, having

~~flown~~ moved back to the compartment 200 returns to the former position before the back flow (near the center of the compartment 202). Any portion, [[out]] of component f~~, having been staying~~ that stayed in the vicinity of the wall portion of the compartment 202 moves ahead of the compartment 202, or to the next compartment rightward in the drawing. When the direction of voltage application is reversed again so as to make the sample move leftward, a part of the component f, having been moved near the center of the compartment 202 flows back to the compartment 202, and a part of the residue stays in the vicinity of the wall portion between the compartment 200 and compartment 202. As described in the above, repetition of cycles switching the direction of voltage application is successful in exponentially reducing ratio of back flow towards the initial compartment on the left hand side of the drawing, and the individual compartments will have components gathered therein depending on their lengths.--

Page 31, replace the paragraph beginning on line 2 with the following amended paragraph:

--Fig. 27 is a top view showing a configuration of the separation apparatus 100 according to the second embodiment of the present invention. In this embodiment, the channel for separation 112 has a plurality of divisional channels including divisional channel 216, divisional channel 218 and divisional channel 220. The sample herein is introduced into the divisional

channel 216, flows through the divisional channel 218 and the divisional channel 220, and is recovered. The divisional channel 216, the divisional channel 218 and the divisional channel 220 are formed so that the one placed closer to the destination of recovery has a larger length. That is, the divisional channel 220 is the longest, the divisional channel 218 is the second longest, and the divisional channel 216 is the shortest. The divisional channel 216 and the divisional channel 218 are formed as being bent at a branching point 274, and the divisional channel 218 and divisional channel 220 are formed as being bent at a branching point 276. The divisional channel 216 and the divisional channel 218 herein are formed substantially in parallel with each other.--

Page 31, replace the paragraph beginning on line 19 and bridging pages 31 and 32 with the following amended paragraph:

--A check valve 230 is provided between the divisional channel 216 and divisional channel 218, and a check valve 232 is provided between the divisional channel 218 and divisional channel 220. The check valve 230 is configured so as to prevent the components ~~once~~ that have reached the branching point 274 from flowing back towards the divisional channel 216 again. Similarly, the check valve 232 is configured so as to prevent the components ~~once~~ that have reached the branching point 276 from flowing back towards the divisional channel 218 again. Because ratio of components flowing back towards the sample introduction

portion 278 can be reduced when the components reside at the branching point 274 and branching point 276, this configuration is successful in ~~separate~~ separating the components in the sample in an accurate and efficient manner.--

Page 34, replace the paragraph beginning on line 16 and bridging pages 34 and 35 with the following amended paragraph:

--In this embodiment, the separation apparatus 100 may be configured as shown in Fig. 5. In this case, an electrode 282, an electrode 284, an electrode 286 and an electrode 288 are provided to both ends of the individual divisional channels 216, 218, and 220. By switching the direction of voltage application to the individual electrodes 284 to 288, it is made possible to move the components in the sample in the upper direction or lower direction, in the drawing, within the divisional channels 216, 218, and 220. Also in this case, the individual electrodes 284 to 288 are connected to a power source and a power source control unit, and patterns of voltage applied to the individual electrodes 284 to 288 are controlled by the power source control unit. Control is made by the power source control unit so as to equalize voltage to be applied to each of the divisional channels 216 to 220. Intensity of electric field depends on potential between the electrodes and distance between the ~~electrode~~ electrodes, so that in an exemplary case of the separation apparatus 100 of this embodiment having the divisional channels 216, 218, 220 ~~differed~~ differing in their lengths, the power

source control unit applies voltage so that the divisional channels 216, 218, and 220 will have different potential values. This embodiment ~~has described~~ describes a case where the individual divisional channels 216 to 220 ~~are differed~~ differ in their lengths, but the configuration shown in Fig. 5 makes it possible to obtain similar effects even if the lengths of the divisional channels 216 to 220 ~~are remained~~ remain constant, i.e., by applying a voltage ~~so as to differ~~ such that different voltage values ~~appeared~~ appear on the individual divisional channels.--